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AUTHOR Whitebook, Marcy; And Others
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ABSTRACT

This national study explored the effects of teachers and their working conditions on the caliber of center-based child care in the United States. Study goals were to: (1) compare center-based child care services in 1988 with those of 1977; (2) examine relations among child care staff characteristics, adult work environments, and quality of child care; and (3) investigate differences in child care quality, child care staff, and adult work environments in centers that varied with respect to standards, accreditation status, auspices, and families served. Participants were 227 centers in five metropolitan areas: Atlanta (Georgia), Boston (Massachusetts), Detroit (Michigan), Phoenix (Arizona), and Seattle (Washington). Classroom observations and interviews with center directors and staff provided data on center characteristics, program quality, and staff qualifications, commitment, and compensation. In addition, child assessments were conducted in Atlanta in an effort to examine effects of varying program and staff attributes on children. Results are reported and recommendations offered. It is concluded that the study raises serious concerns about the quality of services many American children receive. Findings also indicate how services can be improved if the necessary resources are devoted to accomplishing this. (RH)

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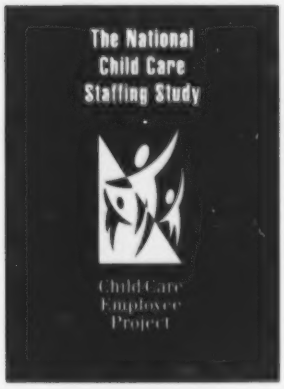

WHO CARES?
Child Care Teachers and the Quality of Care in America

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To the child care teachers who shared their
experiences with us because they do care...

WHO CARES?
CHILD CARE TEACHERS AND THE QUALITY OF CARE IN AMERICA

EXECUTIVE SUMMARY
NATIONAL CHILD CARE STAFFING STUDY

Principal Investigators

Marcy Whitebook, Executive Director
Child Care Employee Project

Carollee Howes, Associate Professor of Education
University of California at Los Angeles

Deborah Phillips, Assistant Professor of Psychology
University of Virginia

The National Child Care Staffing Study was coordinated by the staff of the Child Care Employee Project and funded by a consortium of foundations including the Ford Foundation, the Foundation for Child Development, the A.L. Mailman Family Foundation and the Spunk Fund.

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A shortage of trained child care teachers threatens the existing child care delivery system. *Who Cares? Child Care Teachers and the Quality of Care in America* is the report of the National Child Care Staffing Study, the most comprehensive examination of center-based child care in the United States in over a decade. It reveals that inadequate compensation is fueling a rapidly increasing and damaging exodus of trained personnel from our nation's child care centers. By failing to meet the needs of the adults who work in child care, we are threatening not only their well-being but that of the children in their care. These findings call for a national child care policy that provides increased compensation, improved work environments, and expanded educational opportunities for child care teachers.

INTRODUCTION

As the twentieth century draws to a close, public debate about child care in America has shifted. No longer is the question, "Should resources be allocated to these services?" Rather, discussion now focuses on what form support for child care will take. To date, pressures to expand the supply yet contain the cost to parents have shaped our public policies about child care. Financial considerations have consistently shortchanged efforts to improve child care services. Nevertheless, the supply of child care remains precarious and the fees for services lie beyond the means of many families.

Inattention to quality has had its costs: child care centers throughout the country report difficulty in recruiting and retaining adequately trained staff. Nearly half of all child care teachers leave their jobs each year, many to seek better-paying jobs. As the nation deliberates on what is best for its children, the question of who will care for them grows increasingly critical.

A commitment to pay for quality requires an understanding of the ingredients demanded by quality. It is widely accepted that a developmentally appropriate environment –one with well-trained and consistent staff in sufficient numbers, moderately-sized groupings of children, and proper equipment and activities– will lead to good care. But the fact is that child care staff are leaving their jobs at a rate almost three times higher than a decade ago. This high rate of turnover forces us to examine child care as a work environment for adults, and not just as a learning environment for children. In all work environments –from factories to hospitals– working conditions affect the quality of products produced or services provided. In child care, children's experience is directly linked to the well-being of their care givers. Good quality care requires an environment that values adults as well as children.

As a nation we are reluctant to acknowledge child care settings as a work environment for adults, let alone commit resources to improving them. Even though many Americans recognize that child care teachers are underpaid,[1] outdated attitudes about women's work and the family obscure our view of teachers' economic needs and the demands of their work. If a job in child care is seen as an extension of women's familial role of rearing children, professional preparation and adequate compensation seem unnecessary. Attributing child care skills to women's biological proclivities implies that teachers' jobs are more an avocation than an economic necessity. While such assumptions contradict the economic and educational realities facing those who teach in child care centers, they provide an unspoken rationale for depressing child care wages and containing costs.

Faced with a burgeoning demand for services, a pool of consumers with limited ability or inclination to pay the full cost of care, and restricted government and corporate funds, our nation has implicitly adopted a child care policy which relies upon unseen subsidies provided by child care teachers through their low wages. But as we are painfully realizing, this policy forms a shaky foundation upon which to build a structure to house and nurture our children while their parents earn a living.

HIGHLIGHTS OF MAJOR FINDINGS

Classroom observations, child assessments and interviews with center directors and teaching staff in 227 child care centers in five U.S. metropolitan areas provided the following information about child care teaching staff and the quality of care. Teaching staff includes all staff who provide direct care to children.

- **The education of child care teaching staff and the arrangement of their work environment are essential determinants of the quality of services children receive.**
  - Teaching staff provided more sensitive and appropriate caregiving if they completed more years of formal education, received early childhood training at the college level, earned higher wages and better benefits, and worked in centers devoting a higher percentage of the operating budget to teaching personnel.
- **The most important predictor of the quality of care children receive, among the adult work environment variables, is staff wages.**
  - The quality of services provided by most centers was rated as barely adequate. Better quality centers had:
    - higher wages
    - better adult work environments
    - lower teaching staff turnover
    - better educated and trained staff
    - more teachers caring for fewer children
  - Better quality centers were more likely to be operated on a non-profit basis, to be accredited by the National Association for the Education of Young Children, to be located in states with higher quality standards and to meet adult-child ratios, group size, and staff training provisions contained in the 1980 Federal Interagency Day Care Requirements.
- **Despite having higher levels of formal education than the average American worker, child care teaching staff earn abysmally low wages.**
  - This predominantly female work force earns an average hourly wage of $5.35.
  - In the last decade, child care staff wages, when adjusted for inflation, have decreased more than 20%.
  - Child care teaching staff earn less than half as much as comparably educated women and less than one-third as much as comparably educated men in the civilian labor force.
- **Staff turnover has nearly tripled in the last decade, jumping from 15% in 1977 to 41% in 1988.**
  - The most important determinant of staff turnover, among the adult work environment variables, was staff wages.
  - Teaching staff earning the lowest wages are twice as likely to leave their jobs as those earning the highest wages.
- **Children attending lower-quality centers and centers with more staff turnover were less competent in language and social development.**
  - Low- and high-income children were more likely than middle-income children to attend centers providing higher quality care.
- **Compared with a decade ago, child care centers in the United States receive fewer governmental funds, are more likely to be operated on a for-profit basis, and care for a larger number of infants.**

(For a fuller discussion of the findings, see p. 8)

Improving the quality of center-based child care and addressing the staffing crisis demands the commitment of more public and private resources. The National Child Care Staffing Study findings suggest the following recommendations.

1. Raise child care teaching staff salaries as a means of recruiting and retaining a qualified child care work force.
2. Promote formal education and training opportunities for child care teaching staff to improve their ability to interact effectively with children and to create developmentally appropriate environments.
3. Adopt state and federal standards for adult-child

ratios, and staff education, training, and compensation in order to raise the floor of quality in America's child care centers.

4. Develop industry standards for the adult work environment to minimize the disparities in quality between types of child care programs.
5. Promote public education about the importance of adequately trained and compensated teaching staff in child care programs in order to secure support for the full cost of care.

STUDY DESCRIPTION

PURPOSE AND GOALS

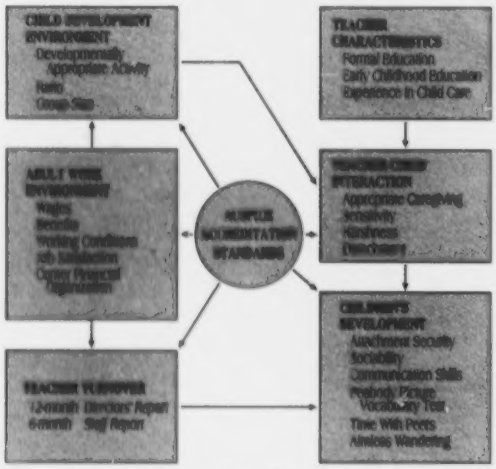
The National Child Care Staffing Study (NCCSS) explored how teachers and their working conditions affect the caliber of center-based child care available in the United States today. To begin our investigation, we identified the aspects of child care represented in *Figure 1*.

Our purpose was to describe each of the areas and examine the relations among them. Our experiences in child care and previous research suggested the pathways between these components of center-based care. This investigation targeted three major goals:

Goal #1. To examine relations among child care staff characteristics, adult work environments, and the quality of child care provided for children and families in center- based care

Previous research suggests that if the ratio and group size did not rise above certain levels and if staff were trained in early childhood education, appropriate interactions between children and adults occurred, and, in turn, positive developmental outcomes for children were found. Thus, we expected that teachers with more professional preparation would be more likely to engage children in sensitive and appropriate interactions. We also hypothesized that teachers who taught in environments arranged to optimize child development would be more sensitive and appropriate with the children. We anticipated that children who participated in more sensitive and appropriate interaction with their teachers would be more socially and emotionally competent.

GUIDE TO THE NATIONAL CHILD CARE STAFFING STUDY



NOTE: The following analysis plan was used to test the model. Within each area (e.g., Teacher Characteristics, Turnover), we used multivariate analyses of variance to compare centers with different auspices, correspondence with FDCR provisions, accreditation, and family income. We used multiple regression techniques to test relations indicated by arrows on the diagram and to test the relative contributions of auspice, correspondence with regulations, accreditation, and percentage of government funding to explain variance within each domain. All findings reported in the text are statistically significant.

But we also wanted to extend this understanding of quality in light of the staffing crisis. We wanted to learn how the adult work environment affects the quality of care. We hypothesized that teachers who taught in child care centers with better work environments (particularly better compensation and working conditions) would be more satisfied with and committed to their careers, less likely to leave, and more likely to provide an appropriate child development environment for the children. We expected that children in centers with lower staff turnover would have more positive child care experiences.

Goal #2. To examine differences in child care quality, child care staff, and adult work environments in centers that varied with respect to standards, accreditation status, auspice, and the families served

We hoped our investigation would shed light on the efficacy of child care standards, the pros and cons of various types of center care, and variation in services available to children from different family incomes. There are currently no federal regulations with which centers are required to comply, and state standards vary dramatically. But in the past decade, two bodies of guidance —the Federal Interagency Day Care Requirements (FIDCR)[2] and the National Association for the Education of Young Children (NAEYC) Center Accreditation Project[3]— have been developed which reflect the most widely respected expert judgment about child care settings. In the absence of mandatory regulations, the FIDCR and the NAEYC provide the best voluntary standards by which to explore the relationship between quality and regulation. Thus, we compared the quality of accredited centers with the quality of non-accredited centers, and the quality of those centers meeting selected FIDCR provisions with those that met none. Additionally, we compared the quality of centers in five states which each have very different child care regulations.

To examine how center type affects child care quality, teaching staff, and adult work environments, we compared child care centers operating under four different auspices: (1) Non-profit, non-church-run; (2) Non-profit, church-run, including synagogues; (3) For-profit chains, centers that are one of several operated by a single owner on a local or national basis; and (4) Independent, for-profit.

While parents are responsible for selecting child care, their choices are constrained by finances. We compared child care quality, teaching staff, and adult work environments of centers serving families from different socioeconomic backgrounds (high, middle and low-income) in order to better understand which centers serve which families and the variation in quality.

Goal #3. To compare center-based child care services in 1988 with those provided in 1977

In order to identify trends in center-based care over the last decade, we compared our findings to those of the National Day Care Supply Study conducted by Abt Associates in 1977.[4]

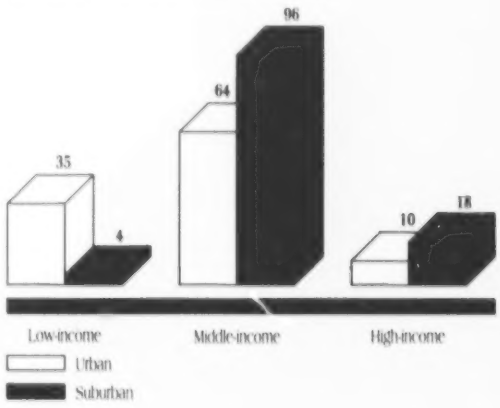
METHODS

The National Child Care Staffing Study examined the quality of care in 227 child care centers in five metropolitan areas in the United States: Atlanta, Boston, Detroit, Phoenix, and Seattle. In contrast to the 1977 National Day Care Supply Study that surveyed child care centers in every state by phone, the NCCSS examined extensively care in these selected communities which represent the diversity of center-based care throughout the country. We began collecting data in February 1988 and finished in August 1988. Classroom observations and interviews with center directors and staff provided data on center characteristics, program quality, and staff qualifications, commitment, and compensation. In addition, in Atlanta, child assessments were conducted to examine the effects of varying program and staff attributes on children.

THE SAMPLE

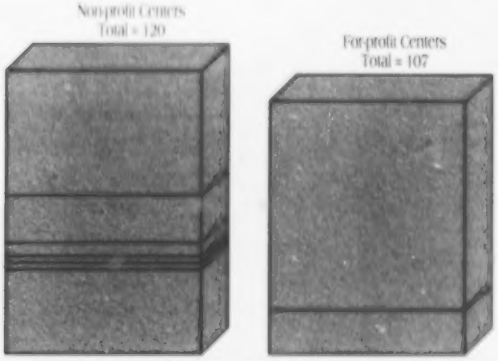
We used a stratified random sampling strategy to generate a sample of child care centers that matched the proportion of licensed centers serving low-, middle-, and high-income families in urban and suburban neighborhoods in each Study site.[5]

FINAL SAMPLE OF PARTICIPATING CENTERS (Based on income of families served)



Sixty-one percent of all eligible centers asked to be involved in the Study agreed to participate. Refusal rates were higher among those centers in middle-income (42% refused) and high-income (38% refused) census tracts, than among those in low-income (23% refused) tracts. No differences in participation rates characterized urban and suburban centers. Centers were more likely to agree to participate if their legal status was non-profit (21% refused) rather than for-profit (39% of independent for-profits and 42% of chains refused).

SAMPLE DESCRIPTION AUSPICE



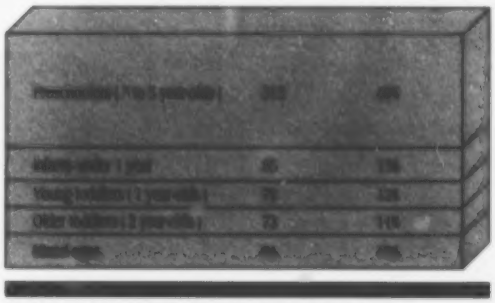
Non-profit Centers
- Total = 120
- Community-based = 53
- Business or hospital = 19
- University = 6
- Public school = 3
- Parent cooperative = 2
- Church-run = 37

For-profit Centers
- Total = 107
- Independently operated = 89
- Part of local or national chain = 18

Telephone screening interviews with all center directors revealed that those who agreed to participate reported higher (i.e., better) staff-child ratios in their centers than did the directors who refused. This suggests that the final sample of 227 centers may, on average, consist of higher-quality centers than in the eligible population as a whole.

In each center, three classrooms were randomly selected for observation, one each from among all infant, toddler, and preschool classrooms. Only two classrooms were observed in some centers that did not enroll infants. Where possible, mixed-age classrooms were included to provide three classrooms per center.

CLASSROOMS OBSERVED BY AGE OF CHILDREN



Number after description indicates number of classrooms observed.

We randomly chose approximately two staff members from each participating classroom to interview and observe. In this report, "Teachers" refers to teachers and teacher/directors. "Assistants" refers to assistant teachers and aides. Sixty-six percent (865) of the final sample of 1,309 teaching staff members were teachers (805 teachers and 60 teacher/directors) and 34% (444) were assistant teachers (286 assistant teachers and 158 aides).

Two children, a girl and a boy, were randomly selected for assessment from each target classroom in Atlanta. Two hundred and sixty children constituted the child sample: 53 infants, 97 toddlers and 110 preschoolers.

THE MEASURES

The complexity of the investigation required a varied approach to collecting data. On average, the research team in each site, consisting of trained observers and interviewers, spent three days in each center.

Quality Observations

The quality measures consisted of observations of classroom structure, overall quality, and interactions between the teaching staff and children.

Overall quality was assessed with the **Early Childhood**

Environment Rating Scale[6] for each observed preschool classroom and the **Infant-Toddler Environment Rating Scale**[7] for each of the observed infant and toddler classrooms. These scales provide a comprehensive assessment of the day-to-day quality of care provided to children. Individual items can range from a low of 1 to a high of 7. From a factor analysis of the scale items derived two subscales: (1) *Developmentally Appropriate Activity* (e.g., materials, schedule, and activities), (2) *Appropriate Caregiving* (e.g., supervision, adult-child interactions, and discipline).

Researchers recorded *Ratios* and *Group Size* at regular intervals during a two-hour observational period per classroom. Hour-by-hour staffing patterns in every center classroom (including those that were observed) were obtained through interviews with directors.

We observed staff-child interaction in each classroom using a scale of **Staff Sensitivity,**[8] to derive scores for *Sensitivity* (e.g., warm, attentive, engaged), *Harshness* (e.g., critical, threatens children, punitive) and *Detachment* (e.g., low levels of interaction, interest and supervision). Scores range from routine caregiving (e.g., touching without any verbal interaction) to intense caregiving (e.g., engaging the child in conversation, playing with an infant while changing diapers).

Director and Staff Interviews

In interviews about structural aspects of the program, including limited budget information and staff characteristics, each director provided information about the teaching staff's demographic and educational backgrounds, compensation, working conditions and turnover. Directors also provided their estimates of the socioeconomic status (low-, middle- and high-income) of all children enrolled in the center.

The six staff members from each of the observed classrooms participated in an individual interview consisting of seven sections: personal background, child care experience, wages and benefits, other jobs, educational background, professional satisfaction and recommendations for improving the child care profession. Six months after the initial staff interview (August 1988 - February 1989), we reached 71% of the staff by phone to obtain data on actual turnover rates.

Child Assessments

We assessed children's development in several ways. The child's security of attachment to adult care givers and sociability with adults and peers were measured using the *Waters and Deane Attachment Q-Set*[9] and the *Howes Peer Play Scale*.[10] Teachers rated communication skills using the *Feagans & Farran Adaptive Language Inventory*.[11] To assess preschool children's language development, we administered the *Peabody Picture Vocabulary Test*.[12]

FINDINGS

CHILD CARE TEACHERS

Who works as child care teachers and what are the characteristics of individual teachers that promote effective caregiving? The following picture emerged from our findings.

DEMOGRAPHIC CHARACTERISTICS

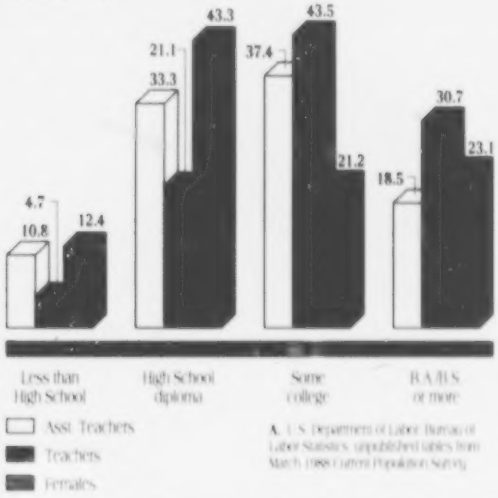
The proportion of child care teachers who were women and their age distribution changed little between 1977 and 1988.[13] Ninety-seven percent of the teaching staff in our Study were female and 81% were 40 years old or younger (only 7.1% were under age 19). Still, the child care work force is remarkably diverse. Twice as many of the teaching staff were members of minorities in 1988 (32%) than in 1977 (15%). The sample was about evenly split between married (46.3%) and single (53.7%) staff. Sixty-five percent of the married staff members and 21% of the single staff had children.

PROFESSIONAL PREPARATION AND EXPERIENCE

Staff in our sample were well educated. **While less than half of women in the civilian labor force have attended college, more than half of the assistant teach-**

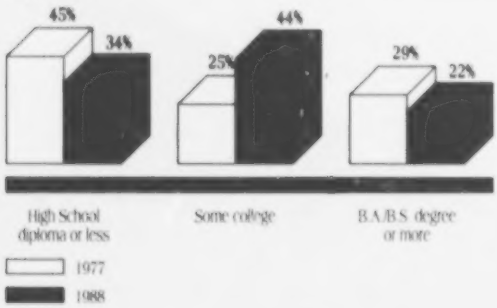
ers and almost three-quarters of the teachers in our Study had some college background.

EDUCATIONAL LEVELS OF CHILD CARE TEACHING STAFF AND OF THE FEMALE CIVILIAN LABOR FORCE, AGES 25 - 64



Although, in 1988, more of the teaching staff had completed some college, fewer had received a college or graduate degree than in 1977.

EDUCATIONAL LEVELS OF TEACHING STAFF: 1977 - 1988



Sixty-five percent of teachers and 57% of assistant teachers had some course work in early childhood education or child development within the formal educational system —at the high school, vocational school, college or graduate school level. Half of the teaching staff with specialized training had received it at the college level or above.

Our child care teaching staff was substantially more experienced in 1988 than in the past. Twenty-nine percent of the teachers and 58% of the assistants had been teaching in child care three years or less when interviewed. But 19% had been working in child care for 10 years or more. In 1977, only 5% had been in the field this long.

PROFESSIONAL IDENTIFICATION

Sixty-six percent of our teaching staff viewed child care as a career rather than as a temporary job. This was particularly true of those with specialized training in early childhood education. Even among those who left their current position, one-third stayed in the early childhood field.

Yet commitment to child care as a career did not translate into membership in professional organizations. Only 14% of the teaching staff belonged to a child-related professional group. Only 4% of the teaching staff were represented by a trade union. Teachers belonging to professional organizations had more formal education. **Those belonging to either a professional organization or a union had more specialized training and experience, earned $1.50 more per hour, and were less likely to leave their jobs.**

FROM TEACHER BACKGROUND TO TEACHER BEHAVIOR

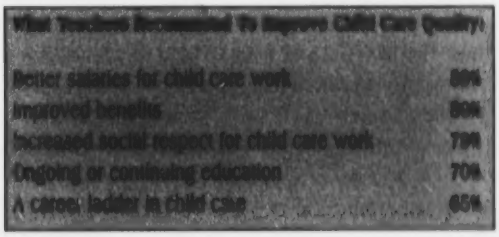
Teachers with different educational backgrounds behaved differently with children. In general, the amount of formal education obtained by a teacher was the strongest predictor of appropriate teacher behavior, with specialized training emerging as an additional predictor in infant classrooms. The amount of experience did not predict teacher behavior. In all age classrooms, the teaching staff's level of formal education best predicted *Sensitive*, less *Harsh*, and less *Detached* caregiving. Our findings differ from the National Day Care Study's[14] in which specialized child-related training, regardless of formal education, best predicted staff behavior.

THE WORK ENVIRONMENT FOR ADULTS

Teachers' wages were the most important predictor in the adult work environment for both measures of quality associated with positive child development: Appropriate Developmental Environment scores and ratios. Teachers with higher salaries worked in centers with better environments for children. Wages and benefits were higher and working conditions better in centers that arranged for staff to have overlapping shifts. These findings suggest that when child care dollars are used to pay staff more, the quality of care for children is greatly enhanced.

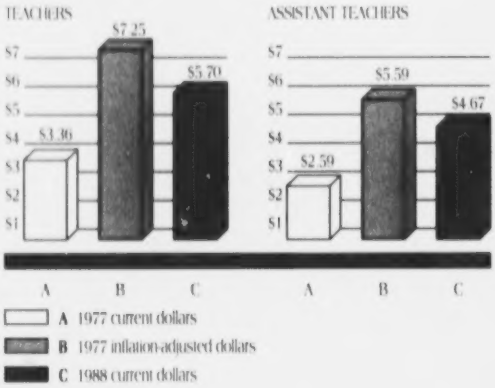
COMPENSATION

Yet child care teaching staff constitute a very poorly paid work force. **The average hourly wage in 1988 was $5.35 which is an annual income of $9,363 for full-time (35 hours/50 week year-round) employment. The 1988 poverty threshold for a family of three (the average family size in our sample) was $9,431 a year.**[15] Fifty-seven percent of our sample earned $5 per hour or less. Most got no yearly cost-of-living or merit increases. A minimum wage of $4.55 per hour was proposed by Congress and vetoed by the President in 1989. Forty percent of the staff in our sample would now be paid more if it had been implemented.


What Teachers Recommend To Improve Child Care Quality
Better salaries for child care work 80%
Improved benefits 80%
Increased social respect for child care work 79%
Ongoing or continuing education 70%
A career ladder in child care 65%

Despite gains in overall formal education and experience, child care teaching staff were paid even less in 1988 than in 1977. Wages, when adjusted for inflation, dropped dramatically: Teachers' earnings fell by 27 percent and assistants' by 20 percent.

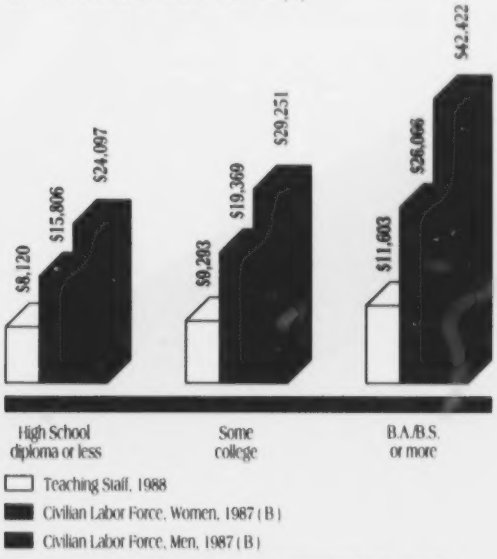
AVERAGE STAFF WAGES: 1977 - 1988



Child care teaching staff are typically paid to work year-round for 35 hours each week. The wages of child care teachers are essential to their family income. Forty-two percent of the teaching staff contributed at least half of their household income. One-quarter of the teachers contributed over two-thirds of their household earnings. To supplement their income, one-quarter of full-time teaching staff in 1988 worked a second job while only seven percent did so in 1977.

It is staggering how little child care staff earn compared with what other comparably educated women in the work force earn. When child care wages in our Study are compared with the wages of comparably educated men, the disparities are even more striking.

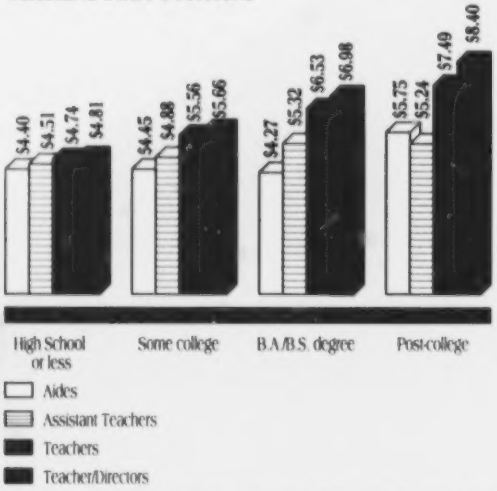
CHILD CARE TEACHING STAFF WAGES VERSUS CIVILIAN LABOR FORCE WAGES (A)



A Full-time annual earnings based on 35 hours per week/50 weeks per year.
B 1988 data not available.
Source: *Money Income of Households, Families, and Persons in the United States: 1987*, Current Population Reports, Series P-6, No. 162, Table 36.

Examining variation in child care wages by staff position reveals a very slight wage scale. Teachers and teacher/directors earned, on average, $1.03 more per hour than did assistant teachers and aides. **Little incentive exists for teaching staff to obtain more education, training, or experience.** As seen in the following chart, the only notable increase in wages occurred for college graduates. Yet this amount would not cover the cost of that education.

WAGES BY EDUCATIONAL LEVEL FOR DIFFERENT TEACHING STAFF POSITIONS



Most child care teachers, even full-time staff, received minimal employment benefits. **Out of the entire sample, two out of five received health coverage and one out of five had a retirement plan**. Other than sick leave and paid holidays, the only benefit offered to a majority of the staff was reduced fees for child care. Teachers earning the lowest wages received the fewest benefits.

WORKING CONDITIONS

The two-thirds of full-time teaching staff were paid, on average, for 40 hours per week. But they averaged an additional four hours per week preparing curriculum, fundraising, or meeting with parents and staff for no pay.

Seventy percent of the teaching staff worked without a written contract. Forty percent had no written job description. Only four percent were protected by a collective bargaining agreement.

JOB SATISFACTION

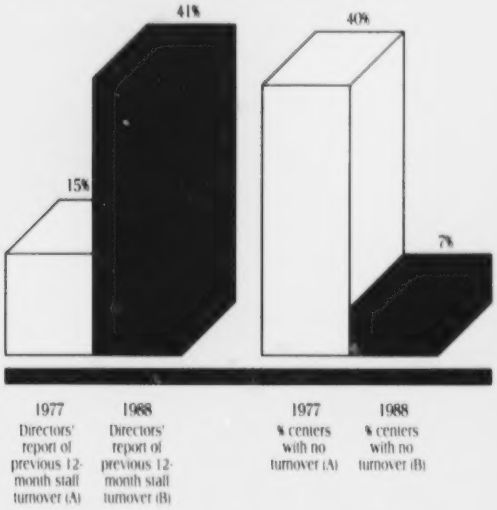
Although dissatisfied with their compensation, teachers expressed very high levels of satisfaction with the day-to-day demands of their work. Their greatest sources of gratification included participating in the growth and devel-

opment of children, autonomy on the job, and relations with colleagues.

STAFF TURNOVER

Staff turnover rates were disturbingly high. **Across all participating centers, directors reported an average, annual turnover rate of 41 percent. The follow-up calls revealed a staff turnover rate of 37 percent over just six months.** The number of directors reporting no staff turnover in their center plummeted between 1977 and 1988.

TEACHING STAFF TURNOVER: 1977 - 1988



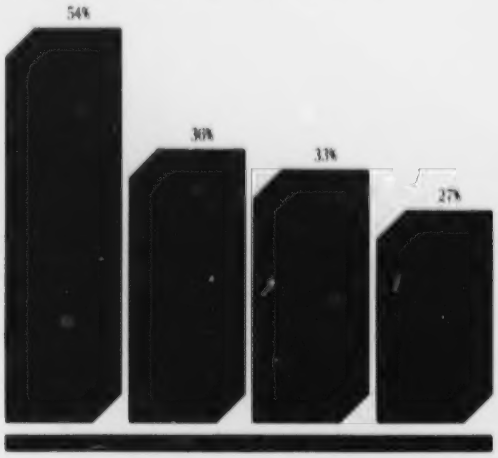
(A) Source: *Day Care Centers in the U.S.: A National Profile 1976-1977*. Abt Associates, Cambridge, Mass., 1978 (National Day Care Study).
(B) National Child Care Staffing Study, weighted data for comparison with the National Day Care Study.

Compared with staff who remained in their centers, those who left were more likely to be new to the field and to have less specialized training. They worked in centers with lower quality preschool (but not infant) classrooms, as measured by the *Developmentally Appropriate Activity* scale. Staff who left also showed less *Appropriate Caregiving* in preschool classrooms and more *Detached* behavior towards all ages of children.

How the Adult Work Environment Affects Turnover

The most important predictor of staff turnover, among the adult work environment variables, was staff wages. In centers paying lower wages, directors reported a larger share of their teaching staff had left in the last 12 months. The follow-up telephone calls to the teaching staff confirmed these reports —actual turnover rates were higher in centers paying lower wages. **Teaching staff earning $4 per hour or less left their jobs at twice the rate of those who earned over $6.** Close to three-quarters of those who left found better-paying jobs in early childhood or other fields.

TURNOVER RATES FOR TEACHING STAFF WITH DIFFERING WAGES (SIX-MONTH TURNOVER)



How Turnover Affects Children

Turnover is detrimental to children. **Children in centers with higher turnover rates spent less time engaged in social activities with peers and more time in Aimless Wandering.** They also had lower *Peabody Picture Vocabulary Test* scores compared with children in centers with more stable teaching staff.

VARIATIONS IN CENTERS

CHARACTERISTICS OF CENTERS

Between 1977 and 1988, the average center enrollment increased from 49 to 84 children. Accordingly, the average number of care givers per center increased from 8 to 15. For-profit centers constituted 41% of centers in 1977 as compared with 47% of the centers participating in the National Child Care Staffing Study. For-profit centers' share of total enrollment also rose from 37% in 1977 to 51% in 1988. Government funding as a proportion of total revenues dropped from 29% in 1977 to 17% in 1988.

The racial composition of the children shifted in the last decade. While there were slightly more whites (63% v. 70%) and fewer blacks (28% v. 21%) in 1988, there were more non-whites from other racial groups (9% v. 13%). The age composition of the children also changed dramatically. In 1977, 14% of the enrolled children were infants and toddlers (two years old or younger). In 1988, this figure had grown to 30%. Thus, the proportion of preschoolers shifted, dropping from 52% to 46% and the proportion of kindergartners and school-age children dropped from 35% to 23%.

CHILD CARE ENVIRONMENTS

Centers in our sample provided a very wide range of child development environments. Quality varied widely for each of our child development environment measures: the *Developmentally Appropriate Activity* score derived from **Environment Rating Scales**, *Ratios*, and *Group Sizes*.

Developmentally Appropriate Activity

The average *Developmentally Appropriate Activity* scores were 3.17, 3.57, and 3.56 for infant, toddler, and preschool classrooms, respectively. A score of 3 indicates "minimally adequate" care on this measure; a score of 5 indicates "good" care, placing the average classroom in the sample at a barely adequate level of quality. At least two-thirds of the classrooms, for all ages of children, fell below a scale score of 4, and, at most, 12% of the classrooms met or exceeded the "good" score of 5.

Ratios

The Federal Interagency Day Care Requirements recommended ratios of 3 infants to 1 adult, 5 toddlers to 1 adult, and 10 preschoolers to 1 adult. On average, we observed ratios of 3.9 infants to 1 adult, 5.8 toddlers to 1 adult, and 8.4 preschoolers to 1 adult. While we observed 3:1 ratios in 36% of the infant classrooms, 30% of the classrooms had ratios of 5:1 or worse. For toddlers, 46% of the classrooms had ratios of 5:1 or better, but 22% had ratios of 8:1 or worse. Preschoolers fared better; 76% of their classrooms had ratios of 10:1 or better and only 7.4% had ratios of 15:1 or worse.

Group Size

The FIDCR recommends group sizes of no more than 10 infants to two-and a half-year-olds, 16 two-and a half to four year-olds and 20 four to six year-olds. On average, we observed group sizes of 7.1 for infants (under 1 year old), 9.6 for toddlers (1 and 2 year-olds) and 13.5 for preschoolers. Eighty-nine percent of the infant classrooms, 63% of the toddler classrooms, and 71% of the preschool classrooms had group sizes coinciding with the FIDCR recommendations.

Staffing Patterns

Most centers change their staffing arrangements during the course of the day. Between nine A.M. and five P.M., one teacher was alone with the children in 55% of infant and toddler classes and 57% of preschool classrooms. Working alone, an infant teacher cared for 3 to 8 children, a toddler teacher cared for 3 to 14 children and a preschool teacher cared for 6 to 22 children. In approximately 15% of the classrooms, staff had no overlap at the beginnings and ends of their shifts, and thus no opportunity to communicate information about the children.

TEACHER-CHILD INTERACTION

The average *Appropriate Caregiving* scores were 4.15, 4.10, and 4.39 for infant, toddler, and preschool classrooms, respectively. This places the average caregiving in classrooms for all ages of children below a level of quality

that indicates "good" care (a score of 5) on this scale. About 30% of all classrooms met or exceeded the "good" score of 5.

From Quality Environments to Teacher Behavior

Teachers in environments with high *Developmentally Appropriate Activity* ratings and lower *Ratios* (i.e., better) were more *Sensitive*, less *Harsh* and less *Detached* when interacting with the children. Contrary to previous studies, group size did not predict teacher behavior.

COMPARISON WITH QUALITY GUIDELINES

Federal Interagency Day Care Requirements

How do centers that meet an acceptable threshold of quality differ from those which don't? To answer this question, every participating child care center was compared according to how they met the three major provisions of the 1980 FIDCR: ratios, group size, and teacher training. Centers that met all three provisions had staff with more formal education, higher levels of early childhood education training, and more experience. They also had more *Developmentally Appropriate Activity* for all ages of children.

Teachers in centers meeting the FIDCR provisions were more Sensitive, less Harsh, and engaged in more Appropriate Caregiving with the children, thus suggesting that standards may contribute to the creation of a warm and caring child care environment.

Centers meeting the FIDCR provisions paid better wages and provided better benefits, except for reduced fees for child care. Teaching staff in these centers reported higher levels of job satisfaction. Finally, directors reported higher staff turnover in centers that did not meet the FIDCR provisions. Centers meeting the FIDCR provisions charged higher parent fees.

COMPARISON OF WAGES, BENEFITS, AND TURNOVER IN CENTERS THAT MET THE FEDERAL INTERAGENCY DAY CARE REQUIREMENTS' (FIDCR) PROVISIONS FOR RATIOS, GROUP SIZE, AND TRAINING (A)

	Centers Meeting No FIDCR Provisions(B)	Centers Meeting All FIDCR Provisions
Average Hourly Wage	$4.43	$6.07
Annual Turnover (Directors Report)	67%	32%
Percentage Receiving Health Benefits(C)	5%	51%
Annual Days of Sick Leave	3 days	6 days
Percentage Receiving Retirement Benefits	2%	24%
Percentage Receiving Cost-of-living Adjustments	18%	45%
Percentage Receiving Reduced Fee for Child Care	77%	48%

A Data are staff reports unless indicated.
B 21% of centers met all, 68% met some, and 11% met no FIDCR provisions.
C Includes partially and fully paid health benefits.

State Regulations

Sites vary dramatically in the proportion of centers that met or failed to meet the FIDCR provisions. This variation corresponds to the stringency of state child care standards. Boston has very rigorous child care regulations whereas Phoenix and Atlanta have among the most lax. In Boston, 46% of centers met all of the FIDCR provisions; every center met some of the provisions. In contrast, only 7% of the Phoenix centers met some of the provisions and 20% failed to meet any. Centers in Boston had higher *Appropriate Caregiving* and *Developmentally Appropriate Activity* scores than did centers in Phoenix or Atlanta. There was a strong relation between state regulations and observed ratios. Centers in Phoenix and Atlanta had worse ratios than centers in other sites for children of all ages.

Accreditation

Fourteen of the 227 centers in each of our sites had completed the center accreditation process sponsored by the National Association for the Education of Young

Children. These centers had staff with more formal education, higher levels of early childhood education training, and more experience than non-accredited centers. Accredited centers had more *Developmentally Appropriate Activity*, more classroom staff, and better infant and toddler *Ratios*. Teachers were more *Sensitive* and engaged in more *Appropriate Caregiving*.

Accredited centers paid better wages and, with the exception of reduced fee child care, provided more benefits. Accredited centers were also more likely to provide regular cost-of-living increases, paid preparation time and written job descriptions. Staff in accredited centers reported higher levels of satisfaction with supervisor and director relations but lower levels of satisfaction with their ability to resolve their own work and family conflicts. Although accredited centers did not charge parents higher fees than non-accredited centers, they did serve children from higher-income families.

Auspices

Differences characterized the four types of centers: independent, for-profit; chain, for-profit; non-profit; and church-sponsored. Educational levels and early childhood training were higher for teachers in non-profit centers than for teachers in either type of for-profit or church centers. Staff in non-profit centers had more experience than staff in for-profit centers.

Non-profit centers had more *Developmentally Appropriate Activity* than did independent, for-profit centers. Non-profit centers also had better *Ratios* than either type of for-profit center. They had more teaching staff in the classroom than any other auspice and were more likely to have two adults in a classroom at any given time than either type of for-profit center. Non-profits were more likely to arrange overlapping shifts for staff than were for-profit centers.

Teachers in non-profit centers were more likely to engage in *Appropriate Caregiving* than were teachers in the other types of centers. Teachers in independent, for-profit centers were more *Harsh* and less *Sensitive* than teachers in other programs.

Non-profit and church centers paid higher wages than did either type of for-profit center. Non-profit centers provided better employment benefits, with the exception of reduced fees for child care, than did church and for-profit centers, and church centers provided better benefits than did independent, for-profit centers.

Both the six-month teacher turnover and the directors' report of the previous 12-month turnover were higher in for-profit centers than in non-profit centers.

WAGES, BENEFITS, AND TURNOVER IN CENTERS OF DIFFERENT AUSPICES (A)

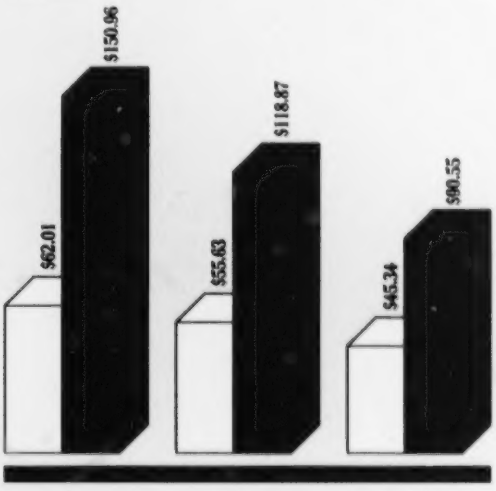
	Chain, for-profit	Independent, for-profit	Non-profit, church-sponsored	Non-profit
Average Hourly Wage	$4.10	$4.76	$5.04	$6.40
Annual Turnover (Directors' Report)	74%	51%	36%	30%
Percentage Receiving Health Benefits (B)	21%	16%	24%	61%
Annual Days of Sick Leave	3	2.5	4.5	8
Percentage Receiving Retirement Benefits	8%	5%	13%	34%
Percentage Receiving Cost-of-living Adjustments	14%	19%	34%	54%
Percentage Receiving Merit Increases	45%	44%	41%	39%
Percentage Receiving Reduced Fee for Child Care	76%	65%	54%	50%

A These data are staff reports.
B Includes partially and fully paid health benefits.

These different types of centers have the same financial resources but receive funds in different proportions. Non-profit centers received a smaller proportion of their incomes from parent fees (59%), compared with church-run (83%) centers and both types of for-profit (87%) centers. The percentage of income from government funds accounted for this difference, with the non-profits receiving 33% of their budget from this source. Partly as a result of this subsidy, non-profit centers had significantly larger overall budgets than did the other centers, controlling for

total enrollment and proportion of full-time enrollment. Combined corporate and charitable funding accounted for just seven percent of any type of center's income. The fees that parents paid for child care differed dramatically by site and by age of child but not by auspice.

MINIMUM AND MAXIMUM WEEKLY FEES FOR FULL-TIME CHILDREN



NOTE: The minimum and maximum fees for each age group represent the lowest and highest average parent full-time fee found in a single participating site. The maximum fee is consistently charged in Boston. Atlanta and Phoenix charge the lowest fees.

Even when budgets were adjusted for differences in contributed space, total enrollment, and proportion of full-time enrollment, both types of non-profit centers spent a higher proportion of their budgets on teaching staff than did for-profits. Non-profit and church-run centers allocated 62% and 63% of their budgets to teaching staff salaries and benefits, respectively. For-profit centers, independents, and chains allocated 49% and 41%, respectively. Similar trends were found for percentages of budgets devoted to total personnel costs.

A final distinction among the differing auspices concerns the socioeconomic status of their clientele as reported by center directors. Children from low-income families were most likely to be in non-profit centers. In contrast, children from middle-income families were disproportionally found in for-profit centers. Children from high-income families were found primarily in non-profit centers and, to a lesser extent, in independent, for-profit centers. Church-sponsored centers tended to serve children from low- and middle-income families.

What do these differences among centers tell us about quality? Auspice was the strongest predictor of quality. The second predictor of quality for infants and toddlers was whether or not a center met the FIDCR provisions. The second predictor of quality for preschoolers was NAEYC accreditation. The presence of government funds had little predictive value. **Non-profit centers, regardless of whether they received government funds, provided better quality care than for-profit centers that did or did not receive government funds.**

FAMILY INCOME AND CHARACTERISTICS OF CARE

Across numerous indicators of quality, we found that children from middle-income families were enrolled in centers of lower quality than were children from low-and high-income families. Children from middle-income families were found in centers with worse staff-child ratios, lower staff wages, and fewer staff with specialized training.

Accordingly, children from middle-income families were more likely to be in classrooms that were observed to offer less *Developmentally Appropriate Activity* and *Appropriate Caregiving*, with only one exception. Preschoolers from middle-income families were in classrooms with higher ratings of *Appropriate Caregiving* than were preschoolers from low-income (but not high- income) families. Children from high-income families experienced lower rates of staff turnover than did children from the two lower-income groups.

These patterns in quality of care correspond to income differences in parent fees. High-income families paid the highest fees, regardless of their child's age. But, non-subsidized, low-income families paid somewhat higher fees than did middle-income families.

RECOMMENDATIONS

Without major improvements in their salaries and working conditions, qualified teachers will continue to leave the child care field for jobs that offer a living wage. Action is required at many different levels of society to meet the challenge of improving the adult work environment in child care and thus the developmental environment for millions of children.

Parents are the starting point. They have the highest stake in improving the stability and quality of care for their children. They can intervene to improve services by demanding that federal and state governments, as well as industry, increase their commitment of resources. Early childhood education professional organizations, resource and referral agencies, direct service providers, training institutions, advocates and, of course, teachers have an important role to play in upgrading the quality of America's child care.

Five major recommendations emerged from the findings of the National Child Care Staffing Study. The first three recommendations, focusing on public and private resource allocation and regulation, are directed toward federal and state governments and employers. The last two recommendations are aimed at providers of direct and support services to child care, including businesses, and involve redefining practices and priorities within the early childhood education field. Suggestions about how to achieve these changes are listed below each recommendation.

1. **Increase child care teacher salaries to recruit and retain a qualified child care work force.**
   - Establish salary levels that are competitive with other occupations requiring comparable education and training.
   - Earmark funds for salary enhancement in all new and current federal and state allotments for child care.
   - Increase the federal minimum wage and ensure that it covers all child care teachers in order to raise the salary floor in child care centers.
   - Encourage significant investment of new public and private resources for child care to help low- and middle-income families meet the cost of improved salaries in their child care programs.
   - Establish reimbursement rates for all publicly-funded child care that reflect the full cost of care based on improved salaries for teachers. Designate state level commissions to regularly assess child care reimbursement rates.
   - Systematize federal, state, and local efforts to collect data on the child care work force.

2. **Promote formal education and training opportunities for child care teachers to improve their ability to interact effectively with children and to create developmentally appropriate environments.**
   - Develop career ladders in child care programs to reward education and training and encourage continuing education for all levels of teaching staff.
   - Include resources for specialized early childhood education training in all new public and private funding for child care.
   - Expand current federal and state college loan deferment programs for elementary and secondary school teachers to include early childhood teachers seeking specialized training at the college level.
   - Establish a national training fund to provide education stipends to individuals currently employed in a child care setting and seeking two-year and graduate degrees in early childhood education.

3. **Adopt state and federal standards for adult-child ratios, staff training, education, and compensation in order to raise the floor of quality in American child care centers.**

- Implement national regulations based on the FIDCR provisions and NAEYC Accreditation Project criteria.
- Require states seeking federal child care dollars to adopt national guidelines.
- Encourage child care centers to participate in NAEYC's Center Accreditation Project.

4. **Develop industry standards for the adult work environment to minimize the disparities in quality between types of child care programs.**
   - Devote a minimum of 60% of center budgets to teaching personnel expenditures in order to maintain adequate salaries and to reduce turnover.
   - Provide an employment benefits package for all teaching personnel which includes paid health coverage, a retirement plan, paid sick leave, vacations and holidays, and an annual cost-of-living adjustment.
   - Implement policies that include regularly scheduled paid time for curriculum perpetration, staff meetings and in-service training.
   - Charge higher fees for services and create sliding fee schedules to assure equity in the percentage of family budgets dedicated to child care expenses.
   - Encourage child care teachers to join professional organizations and unions committed to improving their compensation and working conditions.
   - Create sliding fee scale membership rates to encourage lower-paid child care teachers to join professional organizations.

5. **Promote public education about the importance of adequately trained and compensated teachers in child care programs to secure support for the full cost of care.**
   - Include information about the significance of the adult work environment in all child care training programs.
   - Encourage Resource and Referral Agencies to develop materials to assist parents in assessing the adult work environment, compensation levels and turnover rates when evaluating the quality of child care services.
   - Establish improving compensation as the top priority for the public education efforts of professional organizations in the field.
   - Encourage state and federal governmental agencies to educate parents about quality child care by developing a checklist for rating centers in regard to wages, turnover and staff-child ratios.

CONCLUSION

Amidst the child care debate facing our nation, a consensus is emerging that high quality early childhood services are essential to the developmental and economic well-being of our children and families. The National Child Care Staffing Study raises serious concerns about the quality of services many American children receive. But our findings also clearly indicate how services can be improved if, as a society, we will devote the necessary resources to accomplishing this. America depends on child care teachers. Our future depends on valuing them.

Footnotes

[1]Louis Harris and Associates, Inc. (April, 1989). **The Phillip Morris Companies, Inc. Family Survey II: Child Care.** New York: Phillip Morris Companies, Inc.

[2]In 1980, the Federal government adopted, and almost immediately rescinded, the FIDCR which contains three regulated ingredients of quality: the ratio of children per adult care giver, the group size in classrooms, and the child-related training of the teaching staff. We compared centers in our sample which coincided with FIDCR standards along these identified dimensions with those that did not. **Federal Register, Part V**, Volume 45, No. 55, Wednesday, March 19, 1980, Department of Health, Education and Welfare, Office of the Secretary, H.E.W. Day Care Regulations, pp. 17870-17885.

[3]The NAEYC is the largest early childhood education professional association. NAEYC operates a voluntary, nationwide accreditation program for all early childhood center-based programs. After a thorough review, centers that meet certain standards of care receive accredited status. **Accreditation Criteria & Procedures of the National Academy of Early Childhood Programs**; Sue Bredekamp, Editor; National Association for the Education of Young Children, 1984; pp. 1-2.

[4]Coelen, C., Glantz, R., & Calore, D. (1978). **Day Care Centers in th U.S.: A National Profile, 1976-1977**. Cambridge, Mass.: Abt Associates.

[5]First, the eligible pool of centers was identified from updated lists of licensed child care centers. Eligible centers, in addition to being licensed, provided full-time, non-residential care for at least 9 months per year, enrolled at least 15 children, and employed at least 6 teaching staff members. Second, the final sample of participating centers was selected from this eligible pool. This selection used a stratified, random sampling strategy. Specifically, the eligible pool of centers in each site was divided into six groups based on their location in (1) low-, middle-, or high-income Census tracts (using site-specific median incomes to establish

income cut-offs), and (2) urban or suburban neighborhoods. The final sample of centers was then randomly selected, using replacement sampling to handle refusals, to match the proportion of eligible centers in each of these six income and density groups. Thus, if 30% of the eligible centers in a site were located in low-income, urban neighborhoods, 30% of the final sample for that site consisted of centers in low-income, urban neighborhoods.

[6]Harms, T., & Clifford, R. (1980). **Early Childhood Environment Rating Scale**. N.Y.: Teachers College Press, Columbia University.

[7]Harms, T., Cryer, D., & Clifford, R. (1980) **Infant-Toddler Environment Rating Scale**. N.Y.: Teachers College Press, Columbia University.

[8]Arnett, J. (in press). Caregivers in day care centers. Does training matter? **Journal of Applied Developmental Psychology.**

[9]Waters, E. & Deane, K.E. (1985). Defining and assessing individual differences in attachment relationships: Q-methodology and the organization of behavior in infancy and early childhood. In I., Bretherton & E., Waters (Eds.) Growing points of attachment theory and research. **Monographs of the Society for Research in Childhood, 50**, (Serial No. 209). Pages 41-65.

[10]Howes, C. & Stewart, P. (1987). Child's play with adults, toys, and peers: An examination of family and child care influences. **Developmental Psychology, 23**, 423-430.

[11]Feagans, L. & Farran, D. (1979). **Adaptive Language Inventory**. Unpublished, University of North Carolina at Chapel Hill.

[12]Dunn, L.M. (1984). **Peabody Picture Vocabulary Test (revised)**. Circle Pines, MN: American Guidance Service.

[13]To make comparisons between the Supply Study of the National Day Care Study and the National Child Care Staffing Study, the proportion of centers that (1) were profit versus non-profit and (2) enrolled or did not enroll subsidized children (none versus less than 5 or 20% of enrollment versus more than 5 or 20% of enrollment) were made equivalent in the two samples using a weighting procedure.

[14]Roupp, R., Travers, J., & Glantz, F., & Coelen, C. (1979). **Children at the Center: Final Report of the National Day Care Study**. Cambridge, MA: Abt Associates.

[15]U.S. Department of Commerce, Bureau of the Census, unpublished data.

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Child Care Employee Project, Staff and Consultants

Marcy Whitebook, Executive Director
Caro Pemberton, Associate Director
Maria Bernanga
Carol Bich
Kati Fantacone
Jennifer Holke
Joyce Howe
Mary Hurley
Joan Lombardi
Chris Sheehan
Rachel Sierra
Caryn Taka

Child Care Employee Project, Board of Directors

Rory Bariah-Presadeen
Robin Baker
Judy Calder
Laurie Gardiner
Sara Hicks
Marcy Libster
Ethel Long Scott
Jackie Lopez
Mary Ann Masserabony
Anne Okahara
Dora Pulido
Agnes Ramirez
Rachel Sierra
Carol Stevenson

National Child Care Staffing Study Council of Advisors

Helen Blank
Gina Blumenfeld
Margaret Boyer
Vivian Cadden
Nancy de Prosse
Dana Friedman
Ellen Galinsky
Robert Granger
Heidi Hartmann
Karen Hill Scott
Asa Hilliard
Joan Lombardi
Susanne Martinez
Anne Mitchell
Kathy Modigliani
Gwen Morgan
Jim Moran
Roger Neugebauer
Karen Nussbaum
Diana M. Pearce
Barbara Reisman
Ann Rosewater
Ruth Robinson Saxton
Sandra Scarr
Michelle Seligson
Patty Siegel
Linda Tarr-Whelan
Nancy Travis
Deborah Vandell
Edward Zigler
Caroline Zinsser

National Child Care Staffing Study Research Staff

Atlanta:
Myrtice Dyer, Site Coordinator
Mary Zorn, Site Coordinator
Vernessa Clark
Joyce Cross
Christine Hicks
Ellen Hill
Elizabeth St. Andre
Sandra Gay Westfall
Ann Zavitkovsky

Boston:
Patty Ehrattuk, Site Coordinator
Anne Herbst
Beth Miller

Detroit:
Joyce Beaconne, Site Coordinator
Rosaline Gibson
Janet Munson
Susan Wilson Kamm

Phoenix:
Michele Mazzocco, Site Coordinator
Frances Durkin
Brooke Johnson
Joan Miltonberger

Seattle:
Zakiya Stewart, Site Coordinator
Kathleen Coyle
Rita Hagan
Randi Solinsky

Oakland:
Alison Hicks
Sara Hicks
Molly Jacks
Deborah Salet
Toby Stewart
Kelly White

University of California at Los Angeles:
Carollee Howes, Associate Professor
Darlene Galluzzo
Catherine C. Matheson
Ellen Wolpow

University of Virginia:
Deborah Phillips, Assistant Professor
Kate Berry
Elizabeth Elder
Annette Hahn
Michaux Holmes
Michael Kiernan
Anne Riccuiti
Miriam Voran

And:
Cheryl Foster
Fred Glantz
Robin Jurs
Mike Marsh
Mary Beth Shinn
Bernard Weissman
Rita Weissman
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For other reports from the National Child Care Staffing Study and information about efforts to improve child care quality, contact:

Child Care Employee Project
6536 Telegraph Ave., A201
Oakland, CA 94609
415 653 9889

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